Sean Frazier

Senior Software Engineer & Technical Lead · Search, data pipelines & applied AI

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SUMMARY

Senior software engineer and technical lead with 20+ years of taking software from unclear requirements into production and through formal security review. My recent work spans search, data pipelines and applied AI, and I lead the people and decisions around them: delivery, cloud modernization, security and compliance by design, and senior-leadership trade-offs. Moving into data and AI architecture · Databricks-certified · building Claude agents · open to Solutions Architect and Data & AI architect roles.

CREDENTIALS AND RECOGNITION

HackerRank Orchestrate bronze medal, October 2026 · rank 363 of 4,090 (top 9%) · 24-hour individual AI-agent engineering challenge

Built a Claude agent that audited 518 personal-data deletion requests in 41 minutes, every answer passing its automated checks first time, at an estimated $0.12 per request: Claude judges the evidence, code does the arithmetic.

Databricks Certified Data Engineer Professional · Databricks · September 2026 · credential ID 193095924

AI & Data Science Program: Leveraging Responsible AI, Data and Statistics for Practical Impact · MIT IDSS (Institute for Data, Systems, and Society), delivered through Great Learning · completed July 2026

Claude Certified Architect – Foundations · Anthropic · in progress

TECHNICAL SKILLS

Software and data	Java, JavaScript, TypeScript, Python, SQL, React, Angular, Node.js, Ruby on Rails, PHP, Grails, ExtJS, Spring, Apache Camel, Elasticsearch, Solr, MySQL, REST and web services
AI and data platforms	Databricks (certified), Apache Spark concepts, Pandas, NumPy, vector embeddings, cosine similarity, image similarity search, recommendation systems, predictive modeling, model development and evaluation
Cloud and DevSecOps	AWS EC2, ECS, S3 and RDS; Google Cloud and Firebase; Docker, CloudFormation, Terraform, Jenkins, Nexus, GitHub Actions, CI/CD, Workload Identity Federation
Leadership and security	Technical leadership, program management, team building and hiring, vendor and resource management, senior stakeholder engagement, security and compliance by design, NIST 800-53 control mapping, audit evidence, formal security authorization

PROFESSIONAL EXPERIENCE

Missonovo · Program Manager / Software Engineer / Security Authorization Lead — 2025 – 2026

- Took two applications through formal security authorization in six months: mapped NIST 800-53 controls to the system implementation, produced the audit evidence, validated controls and coordinated the assessments that won approval to go live. The evidence work transfers to SOC 2 and ISO 27001 audits.
- Supported the migration of a legacy on-premises application to AWS and built production components in PHP, Java and JavaScript, storing application data in Amazon S3 and serving files through pre-signed URLs.
- Led software engineering, program coordination and security authorization for business-critical systems at a firm serving public-sector clients, balancing delivery priorities, technical constraints and compliance requirements.
- Served as primary technical contact for client stakeholders, resolving competing priorities and setting technical direction when requirements are incomplete or changing.
- Translated system risks, architectural constraints and delivery trade-offs into decisions for senior leadership, keeping the program moving.

VTG Defense · Software Engineer / Technical Lead / Contract Manager — 2018 – 2025

- Led development of a scalable enterprise search and analytics platform using Angular, Node.js and Elasticsearch for large-scale search, analysis and business-critical workflows.
- Guided the platform through formal security authorization (control implementation, documentation, assessment coordination and remediation) to approval to go live.

- Kept a stalled program alive by cutting its cost: proposed a leaner plan to senior leadership with less project-management overhead and fewer development resources, took on project management and requirements gathering myself, and automated CI/CD so the program no longer needed a dedicated DevOps engineer. Senior leadership kept the program.
- Designed and deployed an applied AI capability for image similarity search using vector embeddings and cosine similarity.
- Built data-ingestion and Elasticsearch indexing pipelines for high-volume processing and efficient retrieval across about 100 GB of data.
- Learned and introduced Angular to modernize the front-end architecture, improve the user experience and increase development velocity.
- Worked directly with senior leadership to define technical strategy, communicate trade-offs and secure long-term investment in the platform, and coordinated stakeholder groups to resolve ambiguous requirements and keep delivery consistent.
- Led a team of four and helped build it: staffing, interviewing, hiring and matching people to the work.

Preferred Systems Solutions · **Senior Software Developer** 2015 – 2018

- Lead developer for two enterprise applications for data organization and business-critical workflows, built with HTML, CSS, JavaScript, Ruby on Rails, Solr and MySQL.
- Owned maintenance and feature delivery, gathered customer requirements, and translated operational needs into specifications and production capabilities.
- Supported AWS-hosted infrastructure, including RDS and distributed search services, and improved build and deployment with Jenkins and Nexus CI/CD enhancements.

TPGS Federal · **Senior Software Developer** 2014 – 2015

- Developed and maintained iOS and Android applications for enterprise users, including porting existing iOS capabilities to Android.
- Maintained a portfolio of Ruby on Rails applications and supported upgrades from Rails 2 to Rails 4.

Booz Allen Hamilton · **Associate** 2012 – 2014

- Led development of a production messaging system that transformed messages between legacy and modern formats using Java, Spring, Apache Camel and JDBC.
- Responded to customer enhancement requests, diagnosed production issues and kept a system supporting business-critical workflows reliable.
- Developed a Python testing prototype estimated to save four to five days of client testing time, and received an internal award for rapidly learning and contributing to the program.

CGI Federal · **Consultant** 2012

- Refactored a budget and workforce-analysis application using Grails and ExtJS.
- Worked directly with users in an Agile environment to define, refine and deliver application requirements.

Earlier career · **Software engineer and research assistant** 2000 – 2012

Imaging, sensor-data and scientific software for research teams (Java, C++, C, PostgreSQL); then enterprise integration and federated search (Ruby, Sinatra, Rack, Linux).

VOLUNTEER PROJECT

KMC DC Events · **Volunteer Full-Stack Engineer** · **Kadampa Meditation Center DC** 2026

- Designed and built an installable, offline-first events app with TypeScript, React, Vite, IndexedDB and Workbox: event filtering, details, registration links, calendar export, directions, sharing and device-specific install guidance.
- Built an automated pipeline that reads the center's published events, validates and compares schedule data, publishes immutable snapshots to Firebase Hosting, and sends schedule-change, duplicate-event and program emails.
- Set up isolated development, test and production environments across GitHub Actions, Google Cloud and Firebase, with pull-request CI, unit and Playwright end-to-end tests, branch-based promotion, Cloud Functions, Cloud Scheduler, Secret Manager and keyless Workload Identity Federation.

EDUCATION

University of Michigan · Bachelor of Science in Engineering (B.S.E.)